

REMARKS

I. STATUS OF THE CLAIMS

Claims 2 and 81-84 have been canceled.

Claims 1, 3-18, 20, 22-34, 37, 39-41, 43-50, 54-73, 76-78, and 80 have been amended.

Claims 85-87 have been added.

Claims 1, 3-80 and 85-87 are currently pending.

No new matter has been introduced into any of the claims as amended or added. Various of the dependent claims have been cancelled as redundant in view of amendments made to the independent claim from which they were dependent.

II. AMENDMENTS

The Specification has been amended to identify the priority information of the present application. The title of the application has been amended to more clearly identify the subject of the present invention.

Claim 1 and claim 37 have been amended to further define the first conductive element as a conductive or semiconductive wire, fiber or paste. Support for this amendment is in the Specification, pg. 10, ¶39 "Suitable conductive elements of the present invention include gold, platinum, palladium, copper, nickle, and nickle alloy wires and carbon fibers or paste"); pg. 12, ¶46 (gold wire, copper wire) and pg. 13, ¶48 (platinum wire). Claim 1 and claim 18 have also been amended to further define the main channel as a main separation channel. Claim 1 has been further amended to state that said main separation channel and said detecting channel intersect. The dependent claims are similarly amended. (Dependent claims 2-17 and 45-50). Support for these amendments lies in Figure 1 and in the Specification, pg. 8, ¶30 and pg. 10, ¶39.

Claims 3-5 have been amended to further define the detecting channel and the main separation channel as intersecting at a "point defined as an angle". The particular size of the angle at which this intersection occurs is defined in degrees (°). Support for this amendment is in the Specification at pg. 8, ¶32.

Claims 7-8 have been amended to include the term “a polymeric material” preceding naming the specific polymeric material (e.g., poly (dimethylsiloxane) and poly (methylmethacrylate), respectively).

Claim 18 has been similarly amended to include a step of “placing a first conductive or semiconductive wire, fiber or paste in said detecting channel”. Dependent claims 19-36 are similarly amended.

Claim 54 has been amended to recite,” an amino acid, a carbohydrate, a protein, an antibiotic, levoglucosan, creatinine, creatine, uric acid, an amine, a thiol, or an alcohol. Support for this amendment lies in the Specification at pg. 8, ¶31, and in Figure 3, among other places. Claim 54 and dependent claims 55-73 and 76-78 have been amended to delete “biological”.

Claim 65 has been amended to even more clearly define the method of claim 37, and recites, “wherein said continuous or pulsed amphoteric detection provides an electrical potential across said microchip to provide separation and detection of at least one specimen in said microfluid.”

Claim 66 has been amended to incorporate the identified V (voltage) ranges of dependent claims 67-73. Dependent claims 67-73 have been cancelled.

Claim 80 has been amended to incorporate the pH ranges individually recited in dependent claims 81-84. Dependent claims 81-84 have been cancelled.

Dependent claims 85-87 have been added. These claims further define the specimen used in the method of claim 54 as hemoglobin (claim 85), hemocysteine (claim 86) or uric acid (claim 87). These specific examples of specimens are biological specimens, particularly proteins and/or amino acids (Specification, pg. 8, ¶31; pg. 16, ¶56), and are inherently supported in the present disclosure.

III. **CONCLUSION**

In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

Respectfully submitted,



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